

Name: _____

at1124exam: Radicals and Squares (v910)

Question 1

Simplify the radical expressions.

$$\sqrt{75}$$

$$\sqrt{18}$$

$$\sqrt{8}$$

Question 2

Find all solutions to the equation below:

$$10 \left((x + 6)^2 - 9 \right) = 70$$

Question 3

By completing the square, find both solutions to the given equation. *You must show work for full credit!*

$$x^2 - 6x = 55$$

Question 4

Any quadratic function, with vertex at (h, k) , can be expressed in vertex form:

$$y = a(x - h)^2 + k$$

A quadratic function is shown below in standard form.

$$y = 3x^2 + 30x + 68$$

Express the function in **vertex form** and identify the **location** of the vertex.